

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An information recording medium, comprising:

a substrate;

a first dielectric protective film over the substrate;

an interface film over the first protective film;

at least one recording film over the interface film, the recording film undergoing change in atomic arrangement upon irradiation with recording beams; and

a second dielectric protective film over and in contact with the recording film, wherein

the second protective film contains a sulfide and the nitrogen content in the second protective film is not more than 25 at.%, the recording film contains Ge-Sb-Te based material and 0.1-10 at.% of at least one element selected from the group consisting of Si, P, V, Mn, Fe, Co, Ni, Cu, Zn, Nb, Mo, Ru, Rh, Pd, Ag, Cd, Sn, Ta, Os, Ir, Pt, Au, Tl, Pb, Bi and Cr, the element bonds to sulfur to produce sulfide or produces a barrier layer inhibiting diffusion of sulfur,

nitrogen contents on both sides of an interface at which the recording film and the second protective film contact with each other is such that the nitrogen content of the protective film side

is greater than that of the recording film side and the changing amount of the nitrogen content in the direction of thickness of the film with the interface between the films as a boundary is 1-50 at.%/nm wherein jitter after overwriting does not exceed 15%, and the recording film is not in contact with the first protective film.

[2. (Cancelled)]

[3. (Cancelled)]

[4. (Cancelled)]

5. (Currently Amended) An information recording medium according to claim ~~2~~ 1, wherein the recording film contains 0.1-10 at.% of Ag.

6. (Previously Amended) An information recording medium according to claim 5, wherein the recording film contains Ge-Sb-Te based material.

7. (Previously Amended) The information recording medium according to claim 1, wherein the second protective film contains zinc sulfide.

8. (Previously Amended) The information recording medium according to claim 1, wherein the second protective film contains a mixture of zinc sulfide and silicon dioxide.

9. (Cancelled)

10. (Previously Amended) The information recording medium according to claim 1, wherein the protective films comprise ZnS-SiO₂.

11. (Previously Amended) The information recording medium according to claim 1, wherein the protective films comprise (ZnS)₈₀(SiO₂)₂₀.

12. (Previously Added) The information recording medium according to claim 1, wherein the recording film comprises Ag-Ge-Sb-Te-N.

13. (Previously Added) The information recording medium according to claim 1, wherein the recording film comprises $\text{Ag}_{2.5}\text{Ge}_{20}\text{Sb}_{22.5}\text{Te}_{55}$.

14. (Previously Amended) The information recording medium according to claim 1, which further comprises:

a first reflective layer over the second protective film; and
a second reflective layer over the first reflective layer.

15. (Previously Added) The information recording medium according to claim 14, wherein the first reflective layer comprises $\text{Al}_{94}\text{Cr}_6$.

16. (Previously Added) The information recording medium according to claim 14, wherein the second reflective layer comprises $\text{Al}_{99}\text{Ti}_1$.

17. (Previously Amended) The information recording medium according to claim 1, wherein the first protective film is thicker than the second protective film.

18. (Previously Added) The information recording medium according to claim 1, wherein the first protective film has a thickness of 90 nm.

19. (Previously Added) The information recording medium according to claim 1, wherein the second protective film has a thickness of 15-18 nm.

20. (Previously Added) The information recording medium according to claim 1, wherein the recording film has a thickness of 14-16 nm.